



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/541,294

06/30/2005

James M Milliken

248.03

6643

37761

7590

04/08/2009

ERICKSON, KERNELL, DERUSSEAU & KLEYPAS, LLC
800 W. 47TH STREET, SUITE 401
KANSAS CITY, MO 64112

EXAMINER

HAYES, KRISTEN C

ART UNIT

PAPER NUMBER

3643

MAIL DATE

DELIVERY MODE

04/08/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/541,294	Applicant(s) MILLIKEN, JAMES M	
	Examiner KRISTEN C. HAYES	Art Unit 3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claim 10 claims that the means for weighting can be metal cable or rope. However, these limitations are not disclosed by the specification.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-16, 18-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 1 recites the limitation "the underside" in lines 6-7 and line 11. There is insufficient antecedent basis for this limitation in the claim.
5. Claim 3 recites the limitation of "a perforated sheet or a woven or non-woven textile material." It is unclear if all the elements listed are in the alternative (should the first "or" be "of"?). Also, the criticality of the make of the textile material is unclear, as it can be woven or non-woven.
6. Claim 13 recites the limitation of "said tube further comprises means for restricting flow of fluid therethrough." However, it appears that the hose comprises means for restricting flow of fluid, not the tube.
7. Claim 16 recites the limitation "the underside" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 3643

8. Claim 20 recites the limitation "the underside" in line 8. There is insufficient antecedent basis for this limitation in the claim.

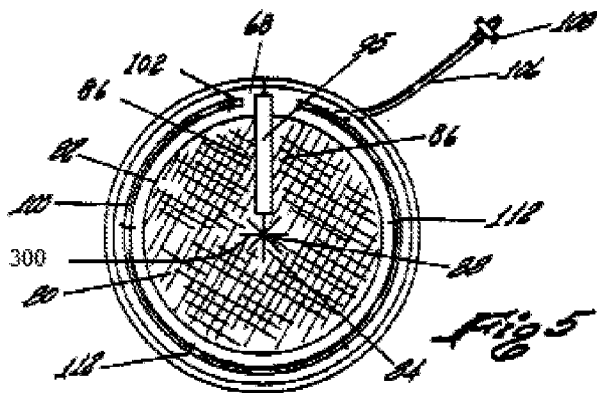
Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

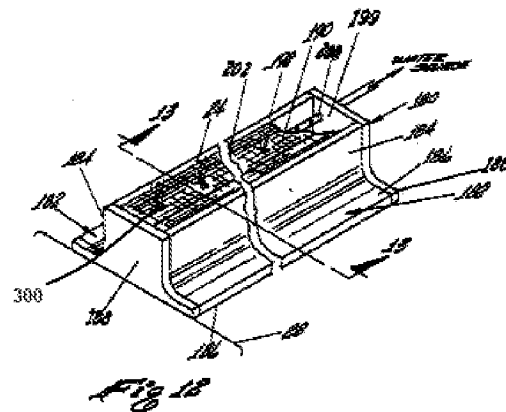
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 16, 19, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Baird US Patent 5,709,049.



Modified Figure 5, US Patent 5,709,049



Modified Figure 12, US Patent 5,709,049

11. Regarding claim 16, Baird discloses a garden weed barrier and watering apparatus (20, 180) comprising landscape fabric (Baird, column 2: lines 1, 2), having edge portions (42 or 184, 186) weighted to retain said fabric in a selected position upon the ground (Baird, column 2: lines 4-7), an opening (88 or 300) (Baird, column 7: lines 45-47) within said fabric for

Art Unit: 3643

receiving garden plants (24), and a water-permeable tube (100 or 200) (Baird, column 5: lines 17-18) attached to the underside of said fabric adjacent an edge of the opening (Baird, Figures 5, 12).

12. Regarding claim 19, Baird discloses a device with the limitations of claim 19 further characterized by the opening (88 or 300) being partially defined by an adjacent portions of the tube (100 or 200) (Baird, Figure: 5).

13. Regarding claim 20, Baird discloses a method of gardening whereby weeds are suppressed through obstruction of sunlight, and fluids are delivered to garden plants via a conduit (100), the method comprising the steps of: providing an opaque vapor-permeable sheet having weighted outer edges (Baird, column 2: lines 1-2, column 7: lines 29-32) of sufficient flexibility to conform to the surface of the ground, (column 4: line 41, column 2: lines 4-7) and having openings (Baird, Figure: 12) for garden plants to extend therethrough, attaching a fluid-permeable conduit (104 and 100 or 200) to the underside of the sheet, applying the sheet to an area of ground, and directing water to the conduit for flow therethrough at intervals selected for (Baird, column 2: lines 30-32) encouraging plant growth. Given the structure of Baird is the same as the claimed structure the method is inherently performed.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3643

15. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith US 3,955,319 in view of Eckart US RE15,231, Frydryk US 4,044,501 and Chapin US 3,361,359.

16. Regarding claim 1, Smith discloses a garden weed barrier and watering apparatus (Smith, Figures 1-8A) comprising a flexible sheet (10) of vapor-permeable material (Smith, column 2: lines 44-47), an opening (formed by slits such as 13, or as seen in Figures 1A-8) in said sheet for garden plant (P) stems to extend therethrough, with said opening formed from a flap cut from said sheet; and means for weighting said edges to substantially conform said edges to the surface of the ground (Smith, column 3: line 68-column 4: line 1). Not disclosed is the flap folded back upon the underside of the sheet, the sheet having reinforced outer edges, or a fluid permeable hose or the hose threaded through a tube. Eckart teaches a flap formed by a slit folded back upon the underside of a sheet (Eckart, Figure 3). Frydryk teaches a weed barrier with reinforced edges (12, 14). Chapin teaches a permeable hose (44) threaded in a tube. The examiner takes official notice that hoses threaded through tubes are arrangements known in the art (as evidenced by US 3,205,619; US 6619565 B11; US 5,839,659; US 3,361,359). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Smith so that the flaps were folded back upon the underside of the sheet as taught by Eckart so as to ensure the opening remained unblocked to predictably aid the growth of the plant; to reinforce the edges of the sheet as taught by Frydryk as to prevent damage to the sheet by strengthening the edges; and to thread the permeable hose of Chapin through a tube in the sheet as to achieve the predictable result of providing an irrigation system (as well known in the art) and to secure the hose to the device.

17. Regarding claim 2, Smith as modified by Eckart, Frydryk and Chapin disclose the device of claim 1. Smith further discloses the sheet comprising a polyethylene material (Smith, column 3: line 63, but is silent as to if it is woven or non-woven. However, non-woven

Art Unit: 3643

polyethylene is known in the art (evidenced by US 2003/0000139). Frydryk further discloses a weed barrier made of non-woven polymer material (Frydryk, column 4: lines 33-35). It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. It would have been an obvious matter of engineering design choice to one of ordinary skill in the art at the time of the invention to make the sheet of Smith out of a non-woven polymer material (as suggested by Frydryk) depending on the type of material desired by the user.

18. Regarding claim 3, Smith as modified by Eckart, Frydryk and Chapin further disclose the sheet comprising a perforated sheet (in that slits 13, 19 etc.) form perforations in the sheet of Smith) of a woven or non-woven textile material.

19. Regarding claim 4, Smith as modified by Eckart, Frydryk and Chapin further disclose the sheet comprising thermoplastic material (in that the sheet of Smith is made from polyethylene, a thermoplastic). The limitation of the thermoplastic being felted is considered a product-by-process limitation. If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art was made by a different process. The examiner also takes official notice that it is known in the art to make sheets out of felted thermoplastic material (evidenced by US 5,181,952). It would have been obvious to one of ordinary skill in the art at the time of the invention to make the sheet of Smith out of felted thermoplastic, depending on the desired properties of the sheet.

20. Regarding claim 5, Smith as modified by Eckart, Frydryk and Chapin disclose the device of claim 1. Frydryk further discloses the reinforced edges being a double layer of the sheet (Frydryk, column 3: lines 44-46) secured by adhesive (Frydryk, column 5: lines 27-29, lines 42-43).

Art Unit: 3643

21. Regarding claim 6, Smith as modified by Eckart, Frydryk and Chapin disclose the device of claim 1. Frydryk further discloses the reinforced edges having holes (35).

22. Regarding claim 7, Smith as modified by Eckart, Frydryk and Chapin further disclose the openings being substantially rectangular (Smith, Figure 5A).

23. Regarding claim 8, Smith as modified by Eckart, Frydryk and Chapin further disclose the openings being arranged in one or more substantially parallel rows (Smith, Figures 1A-8).

24. Regarding claim 9, Smith as modified by Eckart, Frydryk and Chapin further disclose the openings being substantially circular (Smith, Figure 5B).

25. Regarding claim 10, Smith as modified by Eckart, Frydryk and Chapin further disclose the means for weighting being earth (Smith, column 3: line 68-column 4: line 1). As sand is found in earth, Smith is seen as meeting the limitations of the claim.

26. Regarding claim 11, Smith as modified by Eckart, Frydryk and Chapin further disclose the sheet being substantially opaque (Smith, column 3: lines 62-64).

27. Regarding claim 12, Smith as modified by Eckart, Frydryk and Chapin further disclose the means for weighting comprising one or more solid weights attached about the periphery of the sheet, said weights having sufficient flexibility (Smith, column 3: line 68-column 4: line 1).

28. Regarding claim 13, Smith as modified by Eckart, Frydryk and Chapin disclose the device of claim 1 but does not disclose a flow restrictor. However, the examiner takes official notice that flow restrictors are found on hoses in the art (as evidenced by 5,212,905). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the hose (as best understood) of Chapin with a flow restrictor as known in the art, as to predictably prevent high pressure water from the hose from damaging the plant.

29. Regarding claim 14, Smith as modified by Eckart, Frydryk and Chapin disclose⁷ the device of claim 13 but does not disclose the means for restricting comprising a flat plastic disc

Art Unit: 3643

with an aperture positioned within the tube. However, the examiner takes official notice that this is well known in the art to restrict the flow of fluid. The disk blocks the flow of the fluid, and the size of the aperture changes the area the fluid flows through, determining the mass and volumetric flow rates of the fluid. This is an effective, simple way to restrict the flow of fluid through a tube or pipe. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the hose of Chapin with a flat plastic disk comprising an aperture, positioned within the tube to provide a simple way to restrict the flow of fluid through the tube, as known to those in the art.

30. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith US 3,955,319 in view of Eckart US RE15,231; Frydryk US 4,044,501 and Chapin US 3,361,359 as applied to claims 1-14 above, and in further view of Baird US 5,709,049.

31. Regarding claim 15, Smith as modified by Eckart, Frydryk and Chapin disclose the device of claim 13, but do not disclose the means for restricting comprising a conical flow restrictor. Baird teaches a means for restricting comprising a conical flow restrictor (108) in the form of a cone having a flange projecting from the base of said cone (Baird, Figure: 2) and an axial bore (Baird, column 5: lines 22-24) through the longitudinal center of said conical flow restrictor. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the hose of the combination Smith as modified by Eckart, Frydryk, and Chapin with a conical flow restrictor as taught by Baird as a simple way to restrict the flow of fluid through the tube, as known to those in the art.

32. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baird US Patent 5,709,049 in view of Warner US 2004/0088914.

33. Regarding claim 18, Baird discloses a device with the limitations of claim 16, but does not disclose weights secured within pockets. However, Warner teaches the edge portion

Art Unit: 3643

comprising weights secured within edge pockets (Warner, Figure 2). The weights being secured within edge pockets would allow the weights to be interchangeable. If more or less weight were needed, it could be added or removed from the edge pockets accordingly. This would allow the device to be used in a variety of applications and environments. Also, different weighing means such as sand or water could be used. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Baird with weights secured in edge pockets, as taught by Warner, in order to achieve the predictable result of allowing the weights of the device to be interchangeable.

Response to Arguments

34. Applicant's arguments with respect to the rejection(s) of claims rejected under Smith, Frydryk and Chapin have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Smith, Eckart, Frydryk and Chapin.

35. Applicant's arguments filed with respect to claims rejected under Baird have been fully considered but they are not persuasive.

36. As to Baird not disclosing water permeable tube attached to the underside of landscape fabric, the tube is considered attached to the landscape fabric via elements 42 or 184, 186.

37. As to the tube not being adjacent to the opening and the openings in the landscape fabric being partially defined by portions of the tube, the wording of the claim is considered broad enough to be read on by Baird. A measurable or specific distance is not claimed, therefore Baird is seen as meeting the limitations of the claim.

Art Unit: 3643

38. As to Baird not disclosing weighted edges, elements 182, 188, 36 and 34 are considered weighted edges, as they weigh the edges of the vapor-permeable sheet to the ground.

39. Baird is still considered opaque (Baird, column 8: lines 36-37).

40. As to the weighed edges having sufficient flexibility to conform to the surface of the ground, the wording of the claim is considered broad enough to be read on by Baird. This is also considered a functional limitation. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

41. Smith is seen as having weighted outer edges, as the edges of Smith are weighted by earth. Frydryk is used to teach reinforced edges.

42. As to Baird not disclosing a flow restrictor, the changing dimensions of element (108) would restrict the flow of fluid through the tube from a source of water when coupled to the source of water. As to element 108 being a conical flow restrictor, the Figures of Baird show the element 108 in conical form.

43. The examiner notes the well-known in the art statements that hoses threaded through tubes are arrangements known in the art; and means for restricting comprising a flat plastic disc with an aperture positioned within the tube are taken to be admitted prior art because applicant either failed to traverse the examiner's assertion of official notice.

/Rob Swiatek/

Primary Examiner, Art Unit 3643
6 April 2009